

ABSTRACT OF THE DISCLOSURE

The present invention provides methods for making a microporous ceramic material using a metal silicon powder and including a reaction sintering process of the silicon. A material for forming a microporous ceramic material used in these methods includes a metal silicon powder, a silicon nitride powder and/or a silicon carbide powder, and if desired, a yttrium oxide powder and/or an aluminum oxide powder. These methods can make a microporous ceramic material that can be used preferably as a gas or liquid filter, a catalyst carrier or a support of a gas separation membrane.